



REMR TECHNICAL NOTE EM-CR-1.2

CATHODIC PROTECTION OF CIVIL WORKS STRUCTURES

PURPOSE: To identify a source of information on cathodic protection of metal structures at civil works projects.

BACKGROUND: Cathodic protection has been used to prevent corrosion since 1824. Cathodic protection systems today are used to supplement the protection given by paint coatings on steel that is immersed in water.

DESCRIPTION: The characteristics that are most important in designing a cathodic protection system are:

- a. Corrosivity of water.
- b. Anode selection.
- c. Coating selection.
- d. Condition of coating.
- e. Current distribution.
- f. Resistance of the circuit.
- g. Structural configuration.

The importance of each of these characteristics in the design of a cathodic protection system is described in Ref a.

REFERENCES: a. Cathodic protection of civil works structures. A. Kumar, R. Lampo, F. Kearney. US Army Construction Engineering Research Laboratory, Champaign, IL, Dec 1979. Technical Report TR M-276.